

IN THE CLAIMS

Please rewrite the claims as follows:

Claims 1 - 7 (Cancelled).

8. (Currently Amended) A film thickness measuring apparatus using a fast Fourier transformation comprising:

a light source for projecting a light on the surface of a thin film sample;

a spectrograph for splitting the light reflected from the sample according to each wavelength;

an optical measuring device array for measuring intensities of each wavelength of the split reflected light;

a ~~conversion~~ transformation unit for converting a signal of the measured intensities of each wavelength of the split reflected light into a digital signal data; and

a computation unit for computing a thickness of the thin film based on the number of ~~oscillation~~ oscillations obtained by a fast Fourier transformation in which the digital signal data converted by the ~~conversion~~ transformation unit ~~adapts~~ [a] is based on the refraction index dispersion.

9. (Currently Amended) The apparatus according to Claim 8, wherein the computation unit ~~is directed~~ includes means to compute the thickness of the thin film based on the following Equation:

$$d = \frac{619.9}{\Delta(n_f E)} = 619.9 \times f_{nE}$$

where n_f represents a refraction index of the thin film, d represents the thickness of the thin film, $\Delta(n_f E)$ represents a period of reflection spectrum in the axis of photon energy multiplied by ~~dispersive~~ the refraction index dispersion, and f_{nE} represents the number of oscillations of a reflection spectrum in the axis of photon energy multiplied by ~~dispersive~~ the refraction index dispersion.

10. (Currently Amended) A method for measurement of film thickness using a fast Fourier transformation comprising the steps of:

- projecting a light on the surface of a thin film sample;
- splitting the light reflected from the sample according to each wavelength;
- measuring intensities of each wavelength of the split reflected light;
- converting a signal of the measured intensities of each wavelength of the split reflected light into [a] digital signal data; and
- computing a thickness of the thin film based on the number of ~~oscillation~~ oscillations of a reflection spectrum obtained by a fast Fourier transformation in which the digital signal data transformed by ~~the a~~ transformation unit ~~adapts a~~ is based on the refraction index dispersion.

11. (Currently Amended) The method according to Claim 10, wherein in the step of computing the thickness of the thin film, the film thickness is computed based on the following equations:

$$d = \frac{619.9}{\Delta(n_f E)} = 619.9 \times f_{nE}$$

where n_f represents a refraction index of the thin film, d represents the thickness of the thin film, $\Delta(n_f E)$ represents a period of a reflection spectrum in the axis of photon energy multiplied by the dispersive refraction index dispersion, and f_{nE} represents the number of oscillations of a reflection spectrum in the axis of photon energy multiplied by the dispersive refraction index dispersion.